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SOME POINTS

ON THE

PERINEUM AND FORCEPS.

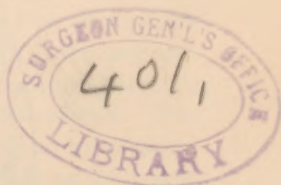
WITH A DESCRIPTION OF A NEW METHOD OF ASSISTING THE PERINEUM,
AND A NEW COMBINED AXIS TRACTION FORCEPS TO BE
USED AS AN ALTERNATIVE FOR CRANIOTOMY.

BY

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(With twelve woodcuts.)



THE use of the forceps is the most important of all obstetric operations, and on its correct manipulation depends, to a great extent, the welfare of both mother and child. Perineal lacerations that could be easily obviated are among the most frequent results of the injudicious use of the common forceps, when by a little study and care with each individual case they need occur but rarely. With our improved knowledge of the physiology of parturition and anatomy of the perineum, the writer believes that we can in many cases, by proper interference, protect the perineum from laceration, while misdirected efforts, based on an erroneous theory or on none at all, often cause the injury. There are cases, however, in which the vulva and perineum will not stretch but will rupture in spite of every effort. All lacerations should be prevented when it is possible, as the slightest are in no way beneficial and

may become an entrance for sepsis. "Supporting the perineum," so-called, came into vogue about the middle of the last century; accepted by some and by others rejected, its status has been doubtful up to date. The vast majority of obstetricians are convinced, however, that "something must be done" to prevent the perineal tear; but they are not entirely satisfied with present methods, and when they do adopt them they are not successful in a large proportion of cases.

A variety of methods have been proposed, but the usual way of "supporting the perineum" is like placing the hand flat

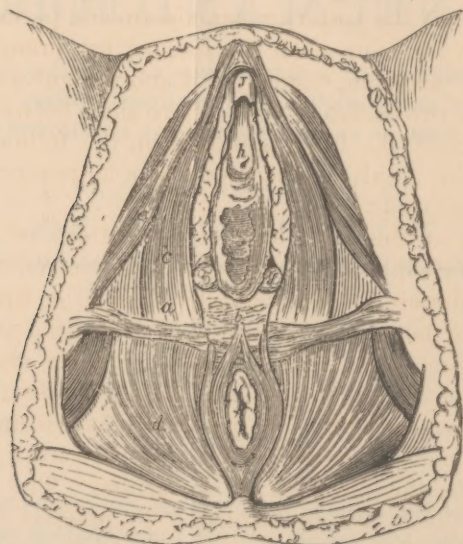


FIG. 1.—Dissection of perineal region (Savage). *a* is just above transversus perinei; *b*, base of perineal body; *c*, bulbo-cavernosus or constrictor vaginae; *d*, levator ani.

against a piece of rubber to keep it from stretching. Marcy,¹ in writing of the perineum, says: "In the nulliparous woman this is clearly defined as a firm portion of the pelvic floor, and is composed of skin, fat, elastic and connective tissue, transverse muscles sustaining fascia, and the anterior portion of the sphincter ani." . . . "The vulvar organs are all intimately blended with, and go to form a part of, the perineum proper."

The best time to examine the perineum and its muscles is during parturition, as then, all the tissues being extremely elas

¹ AMERICAN JOURNAL OF OBSTETRICS, January, 1889.

tic, the finger can easily trace each separate muscle and study its relations.

In many cases any interference with the perineum is not called for, but it is always proper to watch it carefully and see that it dilates equally and gradually, holding back the head when the tension is too great. Sometimes the uterine forces take a vicious direction, driving the head backward and even causing delivery through the rectum. In one case I arrived just in time to prevent this accident; the rectum was bulging outward and delivery threatening through it, caused by the parts being exceedingly distensible and by a misdirection of the forces. If the posterior commissure and perineum become dangerously tense, or when the forceps has brought the head against the perineum, distending it and the vulva sufficiently to allow about two inches of the scalp to show between the labia, and delivery of the head is imminent, the following method, which is the result of the study of a large number of cases, may be employed:

Standing at the right side of the patient, with forceps removed, after wiping the skin with a dry towel, the left hand, with the thumb on the right labia and the tips of the fingers on the left, presses down and draws the vulva and constrictor vaginae from their attachment at the symphysis, thus enlarging the ostium vaginae and relaxing the fourchette. The right hand also relaxes the posterior commissure by pressing the skin, connective and muscular tissue toward it, as illustrated in Fig. 2, in the direction of the arrows. The rate of delivery of the head may be regulated by pressure of the thumb of the right hand against the scalp, if it is coming too fast; or the first two fingers, by pressure at the brow, malar bones, or chin through the anterior wall of the rectum, can assist the enucleation of the head in the intervals of the pains. With the right hand we relax from the sides the skin, transversus perinei muscles, and that part of the perineal fascia named by Savage the ischio-perineal ligaments and mucous membrane. That this pinching and pressing of the transversus perinei toward the central tendon of the perineum can be done is shown by pinching up the tissues of the thigh. The principal strain comes on the central portion of the perineum at the fourchette.

The above method is to be used during the pains, before and

at the moment of crowning and expulsion of the head, when the mother should be cautioned in some cases not to bear down

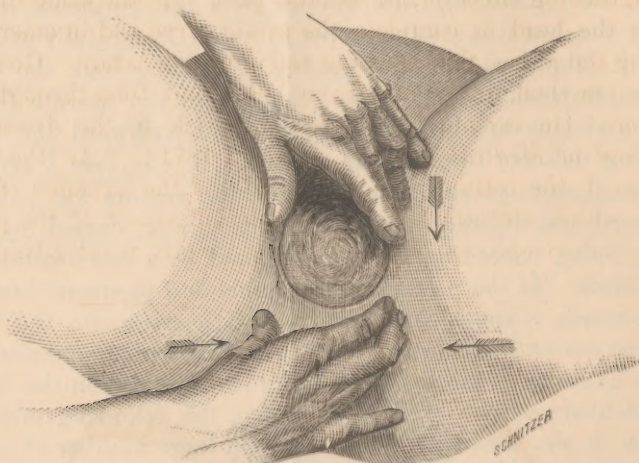


FIG. 2.—Showing author's method of assisting the perineum.

too forcibly. The attendant must also be careful that the patient does not jerk herself away from the pressure suddenly,

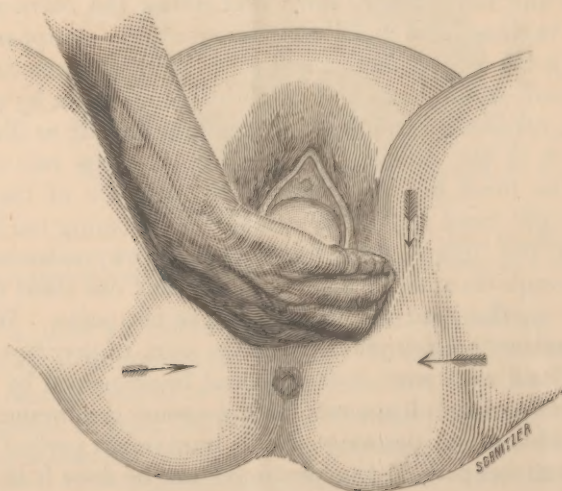


FIG. 3.—The left hand as the bitemporal and bimastoid diameters escape the vulva.

causing the head to come quickly against the parts and thus producing the very accident it is sought to avoid. This method

increases the circumference of the vaginal outlet when it corrugates and relaxes the posterior commissure; it also has a strengthening effect on the weakest part. At the same time it helps the head to complete the pelvic curve and in emerging to hug the pubes, thus assisting and imitating nature. Goodell, in his method, draws only from below and then through the rectum. He says, in his interesting article in the *American Journal of Medical Sciences*, January, 1871: "As the dilatation of the ostium vaginæ is made at the expense of the labia, which are attached to the anterior aspect of the pubic rami and symphysis below the mons veneris, much advantage



FIG. 4.—Last stage of extraction and preservation of the perineum (Playfair).

will be gained both by compelling the complete extension of the head and by carrying forward the perineum in order to approximate the fourchette to the level of the symphysis, whence its fibres spring."

Figures 4, 5, and 6 show how *not* to assist the perineum, and are methods which the writer condemns.

Among the principal indications for the use of the forceps are failure of the ordinary forces and conditions, where the mother or child is in danger and a rapid delivery is requisite. It is sometimes applied before it is really necessary, where the labor is lingering although otherwise natural. An obstetrician

should never be in a hurry : art cannot perfectly imitate Nature, although it may assist her. To interfere by application of the forceps too early is dangerous, as, Nature not being prepared to act promptly and the head not having moulded, the operator finds to his surprise that very powerful and repeated tractions with compression are required, and then often, after much difficulty, finds a dead infant as the result of the delivery. Nature may be apparently slow, but she is generally sure, and while



FIG. 5.—The forceps with the head at the vulva (German school) (Charpentier).

neither mother nor child is in danger there is no indication for the use of forceps. A great many modifications of the forceps have been proposed since its invention by Chamberlin. I find none, however, described, in the works of the authors that I have consulted, similar to the following. All tractions with any forceps ought to be made in the direction of the pelvic axis. The common forceps in use does not meet all the requirements, especially when the head is at the superior strait. It cannot be

made to follow the curvilinear direction necessary for axis traction while compressing the head in difficult and dangerous cases; even by the method of Dr. Albert H. Smith, because in making

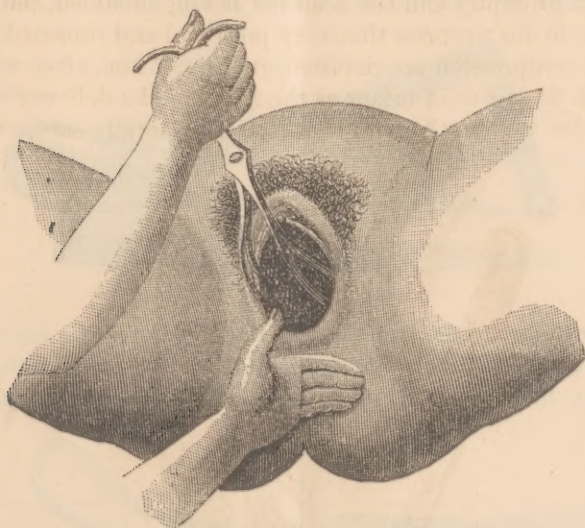


FIG. 6.—Delivery of the head with the classic forceps (French method) (Charpentier)

the handles a lever of the first kind you lose a great deal of the power of traction, which is always weak in the common forceps.

This instrument is the ordinary forceps of Simpson or El-

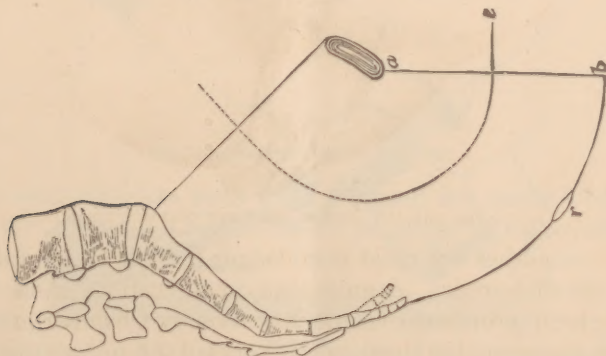


FIG. 7.—Diagram showing the axis of the parturient canal (Leishmann).

liot, provided with adjunct handles, making each blade and handle as firm as if it were one solid piece. With it we can make traction in the ideal pelvic axis during the entire passage

of the head, and the direction of the traction is in a line passing through a point near the end of the handles to the centre of the fetal head (see Fig. 11). It prevents the impinging of the fetal head against the inner side of the pubes, which is the

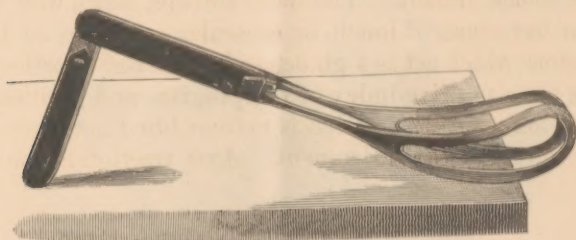


FIG. 8.

cause of most of the trouble and difficulty in forceps cases. We ought to know before the application of the forceps the exact location and presentation of the head, by digital examination



FIG. 9.

combined with abdominal palpation, as the French method of aiming to grasp the head in the biparietal diameter is very

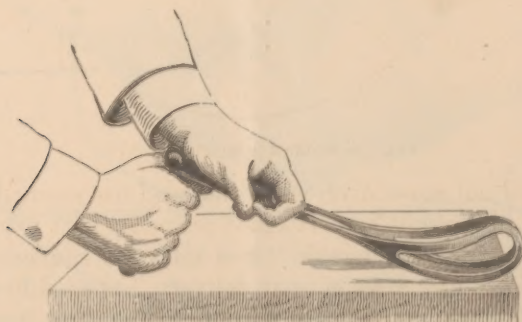


FIG. 10.

much to be preferred to the English or German, where the blades are inserted parallel to the sides of the pelvis. With the ordinary forceps, when leverage and axis traction are imperfect, the sharp ends of the blades may, when describing the

pelvic curve, lacerate the vagina, with rupture of the perineal muscles from within; or cause extension of the forehead and face before the occiput has escaped under the pubes; or the shanks of the blades may grind against the pubic arch, doing damage to the urethra. The above forceps, when well applied, gives to our sense of touch or muscular sense, by its handles, impressions which act as a guide, and the straight portions of the handles are a positive index of the progress and position of the blades; therefore the traction is neither blind nor uncertain, as in some forms of the instrument. Axis traction is a necessity,

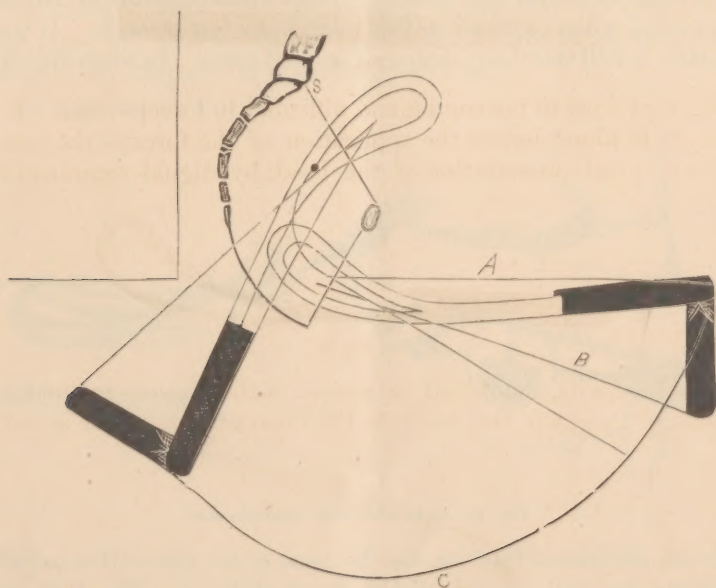


FIG. 11.—Modified from Charpentier.

and it need not cease even when the head has reached the pelvic floor. It cannot be performed properly with the common forceps, where considerable force must be employed. This works all right in cases of easy delivery, but in difficult cases requiring much force it is neither safe nor efficient, as a great deal of the force is expended against the pubes, sometimes even causing fracture at the symphysis. With this form there is no binding screw necessary, and the blades are not immovably fixed after adjustment, as in the forceps of Tarnier; this is important, as sloughing of the tender skin has fol-

lowed the constant pressure of the blades, which should be released every few moments so as not to interfere with the circulation of the parts included. The Tarnier instrument is complicated, no more efficient and more expensive than this form. The advantages claimed are that it makes direct, uncomplicated axis traction; that it is simple and easy of application; that in its dual character it has all the advantages of axis traction and the ordinary forceps, and saves the expense of buying two instruments where one will do; that it is easier to make rotation in posterior positions with the adjunct handles. The blades should first be applied, and the supplemental handles attached when required, as this takes but a few seconds. If well made it will stand any degree of manual force. In some difficult

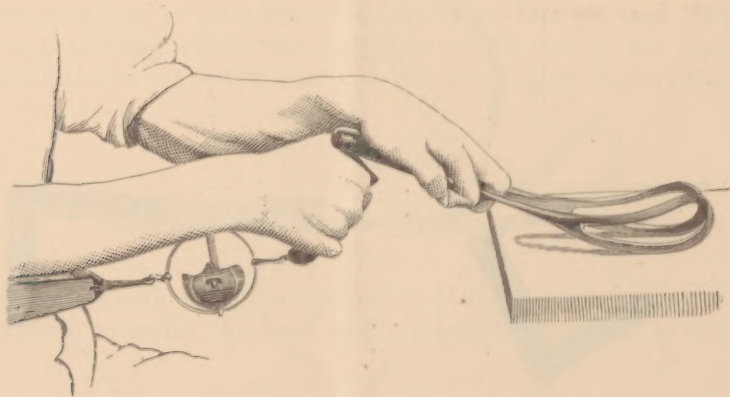


FIG. 12.—Duke's belt with dynamometer.

cases, additional traction can be used as an alternative or substitute for delivery by version or craniotomy. The belt and dynamometer designed by Dr. Alexander Duke, of Dublin, can be added to the instrument to supply a greater amount of tractile force, which is often needed in forceps cases. He used this device whenever the forceps failed or when much fatigued, and is convinced that cases occur in which the child's life has an additional chance in using this plan of delivery, without additional risk to the mother. He says "there is more chance for the child and less risk to the mother's soft parts by pulling the head more forcibly and rapidly through the pelvis, than if it is allowed to remain to mould, as it is called, thus checking the circulation in the parts lining the pelvic walls; and if a greater

force is applied to deliver, the pressure is removed for good and all, and the circulation becomes in those parts re-established." When we consider the "wrong of craniotomy on the living fetus," we know that a conservative measure of this kind should be tried as an alternative, because there are many cases, where craniotomy has been advised or performed, where the mother has previously given birth to a living child; and in others, during the preparations for the operation, and while waiting for the consent of those concerned, Nature has delivered the mother of a living fetus. I have personal knowledge of two similar cases. The operation of craniotomy upon the living fetus will shortly, in the light and advance of modern obstetrics, be relegated to obsolete operations.

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